I strongly urge the commission to maintain the current classification of of internet service providers under Title II regulations.

I am an enterprise network architect and engineer with 20 years of experience. I have witnessed in, and to a small extent participated in, the growth of the nascent commercial internet to the indispensable utility it is today. This experience has taught me how important it is to ensure that access to an open and competitive internet is to modern life. In the mid 1990s, that was accomplished with a light-touch regulatory approach. However, the current landscape requires maintaining the recent reclassification of ISPs as Title II providers.

The Commission is contemplating changes to the regulatory framework of Internet Service Providers (ISPs)[1], but ignores the changes in the landscape of the provider market, especially in the residential ISP market (aka edge providers). Specifically cited is the 47 U.S.C.§230(b)(2), a public law enacted by bi-partisan elected leaders to establish a light-touch regulatory approach. In 1996, when this law was passed, the primary method of consumer access to the internet was via dial-up[2] which, as an overly on the public switched telephone network (PSTN) allowed for easy competition among providers. Even DSL, using physical facilities of the regulated incumbent local exchange carriers (ILECs), which were required to be provided as unbundled network elements, provided for competition.

Bandwidth growth has greatly outpaced the capabilities of dial-up and DSL, and consumer service must be delivered by facilities and technologies that, because of 'light-touch' regulation, do not allow for competition. For example, the FCC declined[3] to require CATV operators to open up their DOCSIS networks in a manner analogous to how the ILECs were required to provide competitive access via UNEs.

To summarize this point- to imply that we must continue the light-touch regulatory approach to ISPs because that is what was in place during the early, explosive growth period, ignores the reality the current marketplace, as well as the nature of internet access in the mid 1990s.

The NPRM lists several activities[4] a typical broadband user may perform while online. In almost all cases, these are *not* provided by the edge provider the consumer is using to access the internet. The ISP is simply a conduit to access the services consumers are seeking. There is no information processing, in the type that is contemplated by this order. There is not, nor should there be, any change in the information transiting the ISPs network. It is the exception, not the rule, that broadband ISPs provided any type of information services.

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[1] Notice of Proposed Rulemaking (NPRM) *Restoring Internet Freedom WC Docket No. 17-108,* ¶ 3
[2] *See Home Broadband 2013*, http://www.pewinternet.org/2013/08/26/home-broadband-2013/ and *Three Technology Revolutions*, http://www.pewinternet.org/three-technology-revolutions/
[3] See *Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, *Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd 4798, 4802, para. 7 (2002) (Cable Modem Order).
[4] NPRM ¶ 27-28

Further, the Commission assumes ISPs are providing information services to residential customers:

"For another , Internet service providers routinely change the form or content of the information sent over their networks —for example, by using firewalls to block harmful content or using protocol processing to interweave IPv4 networks with IPv6 networks."[5]

This is dangerously inaccurate. Providers of residential broadband do not use, nor should they be using, firewalls on the network segments providing service to customers. If customers want advanced security service, that could be separately ordered. A provider's primary purpose is to deliver packets. Additionally, firewalls drop traffic, they do not modify payload (ie, user) data.

The discuss of IPv4 and IPV6 interworking is specious in that such activity, to the extent it takes place, does not modify, process, store, or create *user data,* but rather deals only with header data. Would the Commission consider a PSTN provider that needed to change the voice encoding,say, from pulse code modulation mu-law companding to a-law, as an information service provider simply because it need to make such a change. In fact, in this hypothetical, the format of the *payload* is changing, unlike the IPv4-to-IPv6 example. But ultimately, the change is irrelevant to the end-user. The voice information does not change, just the bitstream that carries it.

While I agree that Title II isn't ideal, it is the best of what the commission has available to it to deal with the current market place. Ideally, we would stop using the 1934 Telecommunications Act (as amended), but until Congress reauthorizes the FCC with clear guidance, Title II is the best framework to use.

The Domain Name System (DNS) is discussed[6] as an example of information service that an ISP provides. It is concerning that so much of this discussion revolves around the function of DNS, and how incorrect the Commission's understanding of this service is. The attempt to use DNS as a justification for classifying ISPs as information providers rather than telecommunication providers is, on it's face, plain wrong. If the Commission chooses this justification, then Local Number Portability (LNP) would justify changing the classification of the PSTN to an information provider. LNP is not just analogous to DNS, it provides almost the same exact function. Today's telephone numbers provide little routing value, but are rather a key to query a database to find the routing location. Telephone numbers are equivalent to domain names that a user would type into a browser location bar. Even more to the point, broadband users are free to, and often do, use DNS services from organizations other than their ISP. PSTN users are not free to use LNP services of another party. Proponents of using DNS as a justification for this regulatory change are actually making the counter argument.

In conclusion, I strongly urge the commission to maintain the current classification of of internet service providers under Title II regulations.

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[5] NPRM ¶ 30
[6] NPRM ¶ 37